

REMARKS

Claims 1-7 are present in this application. Claim 1 is independent.

Statement of Summary of the Interview

The Examiner is thanked for conducting an interview on December 6, 2005. It is believed that as a result of the interview, the Examiner has a better understanding of the present invention.

Claim Rejection; Otani, Mitchell

Claims 1, 2, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,724,157 (Otani) in view of U.S. Patent 4,689,824 (Mitchell). Applicant respectfully traverses this rejection.

Deficiencies in the Rejection

The rejection is deficient in that it fails to establish *prima facie* obviousness. The rejection is deficient in that Mitchell and Otani, either alone or in combination, fail to teach or suggest each and every claimed element. The rejection is deficient in that it fails to provide a motivation to combine Otani and Mitchell.

Claim 1

Claim 1 is directed to an image encoding apparatus which sends a single transmission image by first coding a first image and a second image having a smaller area than the first image and combining them, with the second image arranged in the upper side of the first image in the single transmission image. Claim 1 had been amended to clarify that the "encoder portion" generates a first set of codes and a second set of codes "in a coding block unit determined by

inserting an identification code at a position corresponding to the size of the first rotated image.” The amendment is based on the disclosure of a restart marker that is inserted during the encoding process shown, for example, in Figures 10-12. The amendment used language from the comparable feature of claim 2 of “identification codes indicating coding block units are inserted, based on the size of the rotated image.”

Mitchell fails to disclose features of the claimed encoding portion

At the outset, Applicant agrees with the Office Action that Mitchell does not disclose an encoder for generating a first set of codes corresponding to the first rotated image and a second set of codes corresponding to the second rotated image. However, Applicant disagrees that Mitchell teaches any features of the claimed “encoder portion.”

As recited in claim 1, the “image rotating portion” rotates “first and second images” and outputs “first and second rotated images.” The claimed “encoder portion” generates a first set of codes corresponding to “the first rotated image” and a second set of codes corresponding to “the second rotated image,” in a coding block unit determined by inserting an identification code at a position corresponding to the size of “the first rotated image.” Thus, claim 1 clearly recites that the first set of codes, the second set of codes, and the coding block unit are based on the first and second rotated images output from the image rotating portion.

The Office Action indicates that even though Mitchell does not disclose an encoder portion for generating codes (Otani is relied on for teaching the claimed code generating function), as recited in the claim, Mitchell does allegedly teach a coding block unit determined

by inserting an identification code at a position corresponding to the size of the rotated first image (referring to Fig. 6 and a section at column 8 of Mitchell). In particular, the Office Action states that that column 8, lines 11-44, of Mitchell “shows that pointers, analogous to identification codes, are located at particular points throughout the image to represent a particular size of image data that will be rotated and thus divides the image into particular size portions that will allow the image to be properly rotated and output, the pointers are used to identify the particular subsets of the image data and provide a place for the rotation process to begin and end.” The Office Action further indicates that it would have been obvious to combine the use of pointers to identify sections of image data to allow image data to be properly rotated as described by Mitchell.

Applicant submits that Mitchell discloses an image rotation program that may output a rotated image, but does not disclose an encoder portion for generating a first set of codes and a second set of codes, “in a coding block unit determined by inserting an identification code at a position corresponding to the size of the first rotated image.” Thus Mitchell does not make up for the deficiency of Otani of failing to teach the claimed “coding block unit” used in the generating function of the encoder portion. As recited in claim 1, antecedent basis for “the first rotated image”, as well as “the second rotated image”, recited in the “encoder portion” is based on the output from the image rotating portion. Applicant submits that Mitchell simply does not disclose a “coding block unit” in the function of generating codes of an encoder portion. Rather Mitchell’s pointers relate to an image rotation program, and though they may serve to properly

rotate an image, the pointers are not disclosed as being inserted at a position corresponding to the size of the first “rotated” image in determining a coding block unit.

At least for this reason, Applicant submits that Mitchell and Otani taken alone or together fail to teach each and every element of the claimed “encoder portion” and requests that the rejection be reconsidered.

The rejection fails to provide a motivation to combine the teachings of Otani and Mitchell

The Office Action fails to present a motivation as to why it would have been obvious to include image rotation of Mitchell in the facsimile apparatus of Otani. Instead the Office Action appears to rely on Mitchell’s pointers as teaching an identification code and presents a statement as to why the pointers of Mitchell would improve image rotation.

In particular, the Office Action relies on pointers described at col. 8, lines 11-44, of Mitchell, and presents a statement indicating a motivation that states, “it would have been obvious to a person of ordinary skill in the art to combine the use of pointers (identification codes) to identify sections of image data to allow image data to be properly rotated as described by Mitchell with the system of Otani” (page 4, second full paragraph).

Requirements for establishing a motivation to combine references

To establish obviousness based on a combination of elements disclosed in the prior art, there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant. The motivation suggestion or teaching may come explicitly from the statements in the prior art, the knowledge of one of ordinary skill art, or in some cases, the nature of the problem to be solved. See Dembiczak 50 USPQ at 1614 (Fed.Cir.

1999). In Kotzab, the CAFC held that even though various elements of the claimed invention were present (in two separate embodiments of the same prior art reference), there was no motivation to combine the elements from the separate embodiments, based on the teachings in the prior art.

Applicant submits that neither Mitchell nor Otani provide a motivation to combine pointers of Mitchell with the facsimile apparatus of Otani. The rationale of “to allow image data to be properly rotated” only serves to show why pointers disclosed in Mitchell would be useful in the image rotation program of Mitchell.

Because the rejection fails to provide a motivation to show why it would have been obvious to one of ordinary skill in the art to combine the rotation program of Mitchell with the facsimile apparatus of Otani, in a manner required in the claimed invention, Applicants submit that the rejection fails to establish *prima facie* obviousness.

Mitchell’s pointers are not disclosed as being for determining a coding block unit by inserting a pointer at a position corresponding to the size of a rotated image, as alleged in the Office Action

Requirement to Establish prima facie obviousness

According to M.P.E.P. § 2143.03, to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Claim Interpretation

During patent examination, the pending claims must be “given [their] broadest reasonable interpretation consistent with the specification.” In re Hyatt, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000).

Claims are not to be read in a vacuum, and limitations therein are to be interpreted in light of the specification in giving them their ‘broadest reasonable interpretation’. In re Okuzawa, 537 F.2d 545, 548, 190 USPQ 464, 466 (CCPA 1976).

The final Office Action indicates that Figures 1, 3, and 4, and associated description of Fig. 2, of Otani teach features of claim 1. Fig. 2 of Otani discloses a report printout processing for printing a report of results of communication. The Office Action doesn’t particularly point out what in Otani constitutes the claimed first image and second image. For the sake of argument, Applicant assumes that the disclosed report image, being a smaller image located at a top of a printed report, corresponds to the claimed second image. Applicant assumes that the disclosed communication image, corresponds to the claimed first image.

The Office Action states that Otani fails to teach the claimed image rotating portion, and instead relies on Mitchell for making up for the deficiency of Otani. In particular, the Office Action refers to a section in Mitchell at col. 8, lines 39-44.

Mitchell is directed to a rotation algorithm that rotates a binary image by 180 degrees quickly. The algorithm is implemented as a program. According to the section at col. 8, “the program rotates an image of ROWS rows and COLS columns beginning at the address pointed to by INIMAGE. The rotation is by 180 degrees. The rotated image is placed at the address pointed to by OUTIMAGE. The input and/or output images may be part of a larger image.”

The Office Action further states that Otani teaches the claimed function of generating a first set of codes and a second set of codes, but relies on Mitchell for teaching generation of the first and second set of codes in a coding block unit determined by inserting an identification code at a position corresponding to the size of the first rotated image (final Office Action at page 3, bottom full paragraph; paragraph bridging pages 3 and 4).

In the section at col. 8, Mitchell refers to two pointers. The INIMAGE pointer is described as a “pointer to the first byte (i.e. the upper left-hand corner byte) of the original image.” The OUTIMAGE pointer is described as a “pointer to the location where the first byte of the output image is to be stored.” Even if it could be argued that Mitchell’s pointers relate to determining a coding block unit, which Applicant disagrees, Applicant submits that **neither the INIMAGE pointer nor the OUTIMAGE pointer are inserted at a position corresponding to the size of a rotated image**, as required by the claim.

Therefore, at least because the rejection fails to provide a reason to combine the rotation method of Mitchell with the facsimile apparatus of Otani, and because Mitchell fails to make up for the deficiency of Otani of failure to teach an encoder portion for generating a first set of codes and a second set of codes “in a coding block unit determined by inserting an identification code at a position corresponding to the size of the first rotated image,” Applicant requests reconsideration and withdrawal of the rejection.

Claim 2

In addition, the rejection of claim 2 further illustrates the deficiencies of the claim rejection. The Office Action states that, “Mitchell further discloses wherein the encoder portion determines an interval at which identification codes indicating coding block units are inserted, based on the size of the first rotated image (see Fig. 6 and col. 8 lines 11-44).” Applicants submit that Mitchell does not disclose an encoder portion, and much less an encoder portion that “determines an interval at which identification codes indicating coding block units are inserted, based on the size of the first rotated image.” Mitchell merely discloses an image rotation method that uses a pointer (address) to the first byte of the original image, i.e., INIMAGE.

Claim Rejection; Otani, Mitchell, Hirakawa

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otani in view of Mitchell, and further in view of JP 11-313210 (Hirakawa; “JP ‘210”). Applicant requests reconsideration of this rejection.

According to the JPEG standard, when the sender information is inserted at the leading side of the image, the compressed data is divided by restart markers into rectangular blocks of the same length as the sender information (present specification at pages 15-16). In other words, if the sender information is inserted at the leading side of the image, codes for the first image are generated based on the coding block unit determined depending on the size of the second image, i.e., length of sender information. In JP ‘210 on the other hand, the coding block unit is determined based on the size of the sending agency information.

JP '210 does appear to relate to encoding of color images based on JPEG for facsimile transmission. However, as can be seen in drawing 2, the coding block unit is based on the size of the sending agency information 51. Thus, unlike the present invention, the coded data has several small encoded blocks that are transmitted (e.g., 50b, 50c, 50d). In other words, JP '210 represents the prior art, which the present invention improves over.

As can be seen in drawing 2(b), JP '210 would have the problem solved by the present invention. In particular, since the sending agency information 51 replaces the leading edge block 50a of the color photography image 50a to 50d, the size of each block is the size of the sending agency information block 51 (para. 0083), i.e., rather than the size of the color photography image.

Based on the above comments, Applicant submits that JP '210 fails to make up for the deficiency of Otani and Mitchell of failure to teach elements of claims 3-5. Accordingly, Applicant requests reconsideration and withdrawal of the rejection.

Conclusion

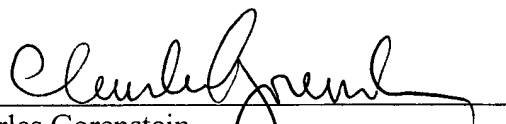
In view of the above amendment, Applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert W. Downs (Reg. No. 48,222) at the telephone number of (703) 205-8000, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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